# GROUP 13C

# FUEL SUPPLY

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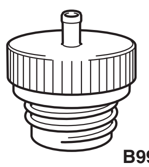
# GENERAL INFORMATION

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- The fuel tank is located underneath the rear seats to improve safety at a collision.
- The fuel tank itself is made of a pre-coat galvanized steel sheet that contains no lead.
- The fuel tank pump is housed in the fuel tank to improve collision safety.
- A fuel tank safety valve, which prevents fuel leakage when the vehicle banks or rolls over, is located inside the fuel tank pump and gauge assembly.
- The fuel high-pressure hose and fuel tank hose are made of the material, which does not allow fuel vapour to pass through it as much as possible.

# SPECIAL TOOL

M1135000600526

| Tool | Number | Name | Use |
|---|---|---|---|
|  B992145 | MB992145 | Fuel leak check cap | Fuel leak check |

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# ON-VEHICLE SERVICE

## FUEL TANK PUMP OPERATION CHECK

M1135001000390

Refer to GROUP 13A - On-vehicle Service, Fuel Tank Pump Operation Check P.13A-357.

## FUEL TANK GAUGE UNIT CHECK

M1135003100489

Refer to GROUP 54A – Combination Meter, On-vehicle Service, Fuel Tank Gauge Unit Check P.54A-65.

## FUEL TANK PUMP AND GAUGE ASSEMBLY REPLACEMENT

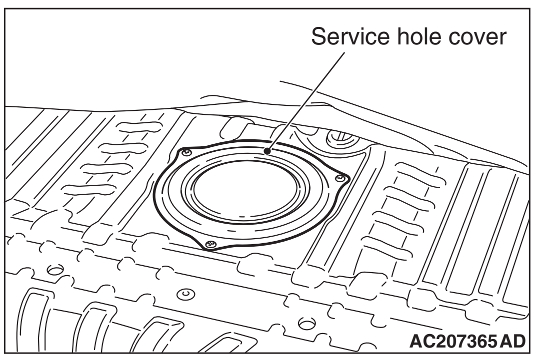
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1. Lift up the rear seat assembly.

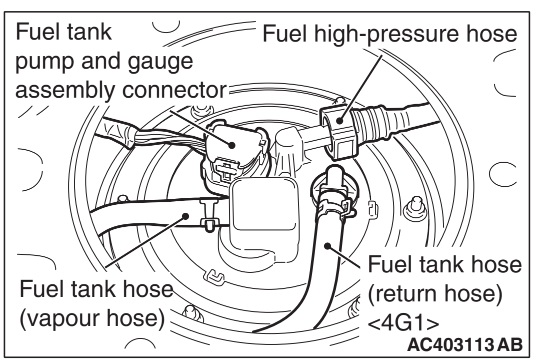
⚠ CAUTION

**Moulding type of floor carpet is used. Be careful not to change the shape of carpet when turning it over for operation.**

2. Remove the rear scuff plate, and turn over the floor carpet. (Refer to GROUP 52A, Interior Trims P.52A-11).



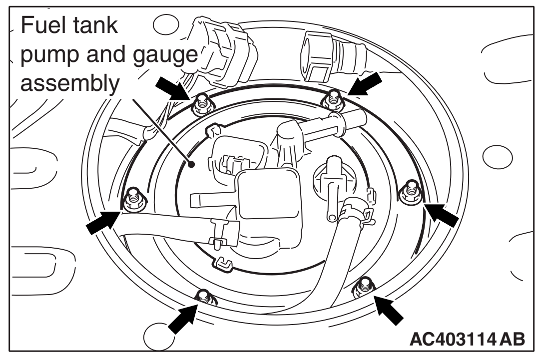

3. Remove the service hole cover.




4. Disconnect the fuel tank pump and gauge assembly connector.
5. Crank the engine for at least two seconds.
6. If the engine is not started, turn the ignition switch to the "LOCK" (OFF) position.
7. If the engine is started, turn the ignition switch to the "LOCK" (OFF) position after the engine stopped.
8. Disconnect the fuel high-pressure hose, fuel tank hose (vapour hose) and fuel tank hose (return hose) <4G1>.

⚠ CAUTION

**When withdrawing the fuel tank pump and gauge assembly from the service hole, be careful not to damage the gauge and the float.**




9. Remove the fuel tank pump and gauge assembly mounting nuts, and then remove the fuel tank pump and gauge assembly from service hole.

   *NOTE: When disassembling and reassembling the fuel tank pump and gauge assembly, refer to the items of fuel pump module disassembly and reassembly (Refer to P.13C-8).*

10. Replace the fuel tank pump gasket with a new one.

⚠ CAUTION

**When installing the fuel tank pump and gauge assembly from the service hole to the fuel tank, be careful not to damage the gauge of fuel tank pump and gauge assembly and the float.**

11. Install the fuel tank pump and gauge assembly from the service hole to fuel tank, and then install the fuel tank pump and gauge assembly mounting nuts.
12. Connect the fuel tank pump and gauge assembly connector, fuel high-pressure hose, fuel tank hose (vapour hose) and fuel tank hose (return hose) <4G1>.
13. Install the service hole cover.
14. Return the floor carpet to the original state, and install the rear scuff plate. (Refer to GROUP 52A, Interior Trims P.52A-11).
15. Return the rear seat assembly to the original state.

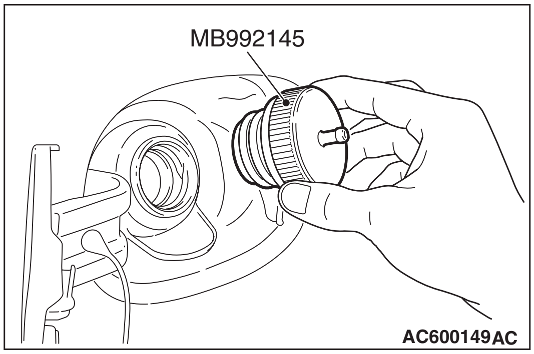
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## FUEL LEAK CHECK OF FUEL TANK

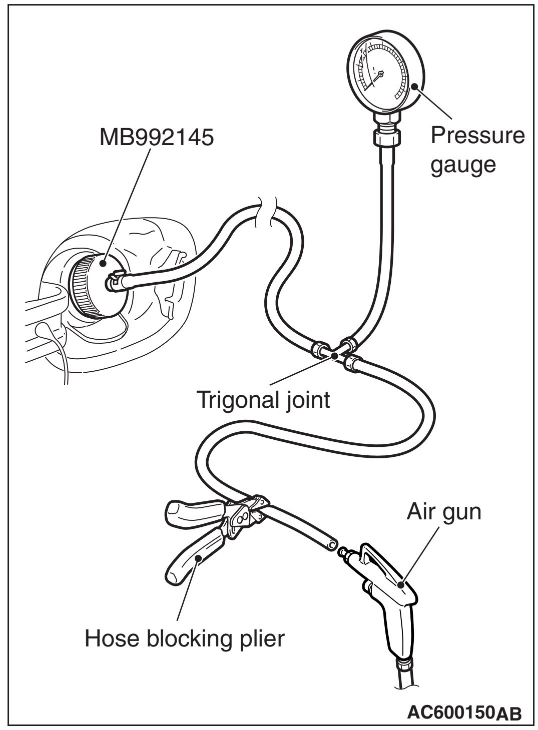
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⚠ CAUTION

**Always check the fuel leak of fuel tank with the vehicle loaded. If it is checked with the fuel tank removed, the fuel tank may be damaged.**




1. Remove the fuel tank cap, install the special tool fuel leak check cap (MB992145).




2. Install the hose and pressure gauge to the special tool (MB992145) as shown.
3. Block the canister vapour hose (fuel tank side).

⚠ CAUTION

- **Do not pressurise suddenly.**
- **Do not pressurise 11.76 kPa or more to prevent the damage of components.**

4. Pressurize while checking the pressure gauge and hold if it reaches from 9.80 to 11.76 kPa.
5. Leave it for approximately 3 minutes and check that the pressure is not weakened.
6. If the pressure is weakened, apply soapy water to each part with pressurised state and check the leak while confirming if air bubbles are seen.

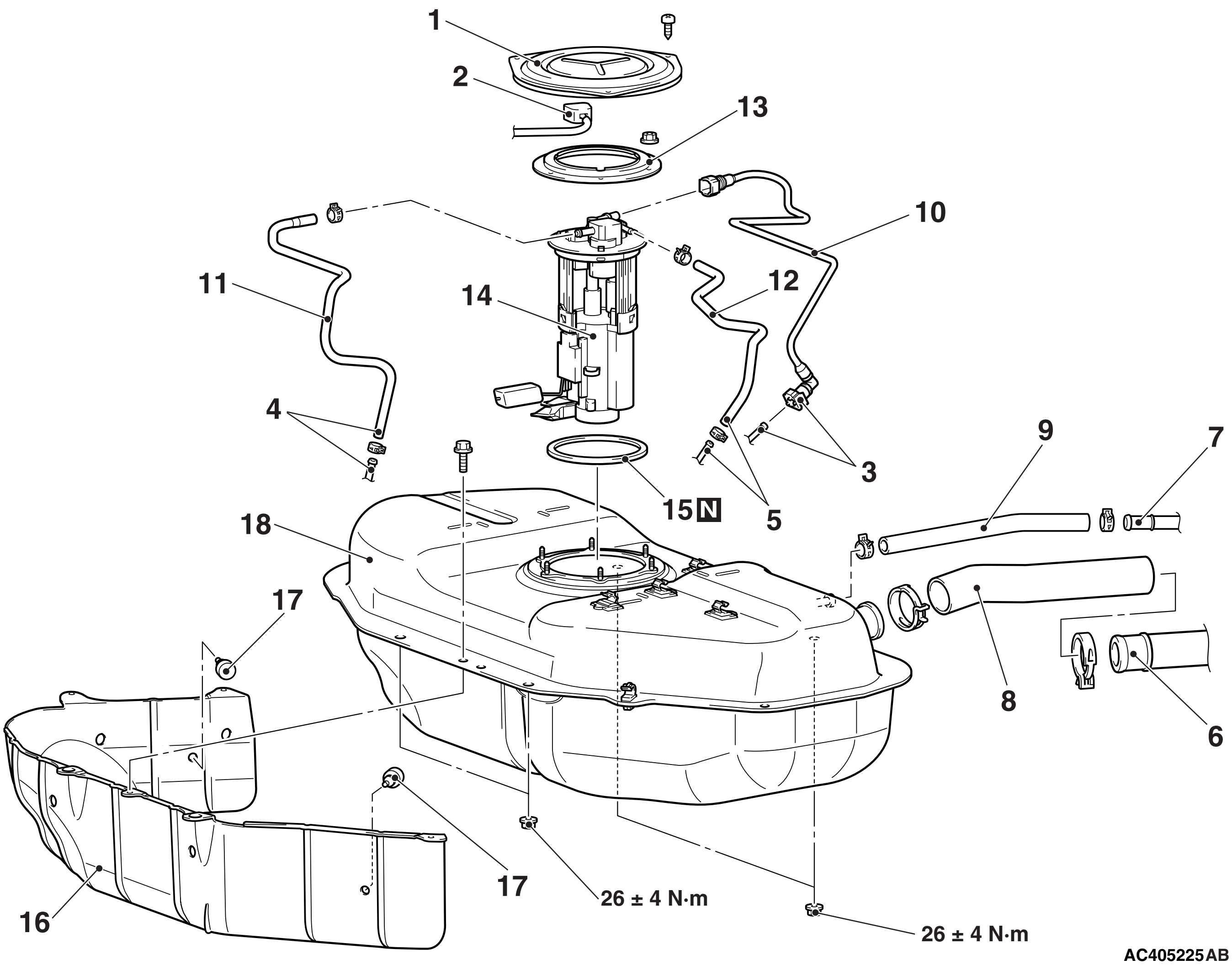
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# FUEL TANK

## REMOVAL AND INSTALLATION

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| Pre-removal Operation | Post-installation Operation |
|---|---|
| • Draining Fuel<br>• Fuel Line Pressure Reduction <4A9> (Refer to GROUP 13A, On-vehicle Service P.13A-357).<br>• Fuel Line Pressure Reduction <4G1> (Refer to GROUP 13B, On-vehicle Service P.13B-360). | • Checking for Fuel Leak<br>• Refilling Fuel |




**Removal steps**

- Lift up the rear seat assembly.
- Rear scuff plate (Refer to GROUP 52A, Interior Trims P.52A-11).
- Turn over the floor carpet.

1. Service hole cover
2. Fuel tank pump and gauge assembly connector
3. <<A>> >>B<< Fuel high-pressure hose connection
4. Fuel tank hose (vapour hose) connection
5. Fuel tank hose (return hose) connection <4G1>

**Removal steps (Continued)**

6. Fuel filler hose connection
7. Fuel filler neck breather hose connection

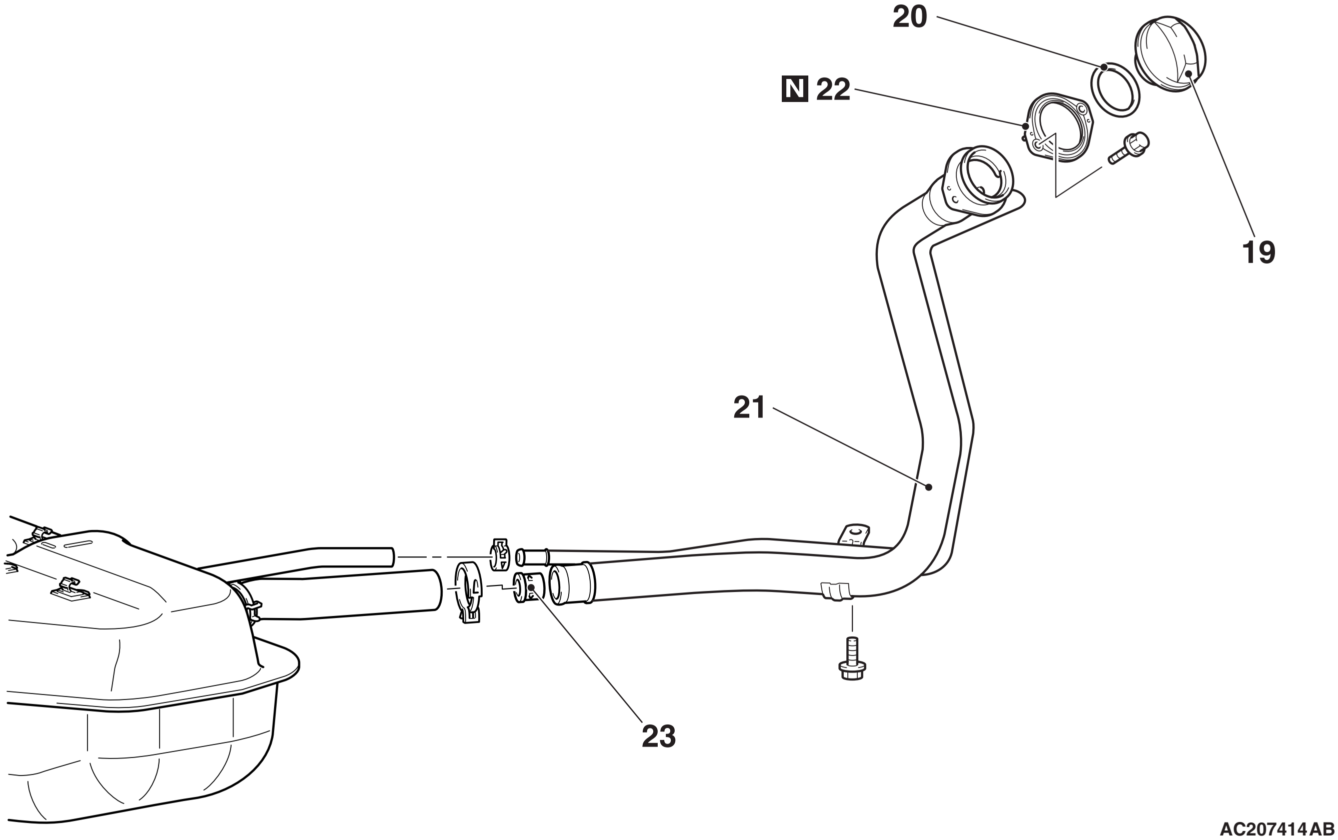
- <<B>> Fuel tank assembly

8. Fuel filler hose
9. Fuel filler neck breather hose
10. Fuel high-pressure hose
11. Fuel tank hose (vapour hose)
12. Fuel tank hose (return hose) <4G1>
13. Fuel pump bracket plate
14. <<C>> >>A<< Fuel tank pump and gauge assembly
15. Fuel tank pump gasket

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**Removal steps (Continued)**

16. Fuel tank lower protector
17. Fuel tank protector stopper
18. Fuel tank




**Removal steps**

19. Fuel tank cap
20. Fuel filler cap gasket
21. Fuel filler neck assembly

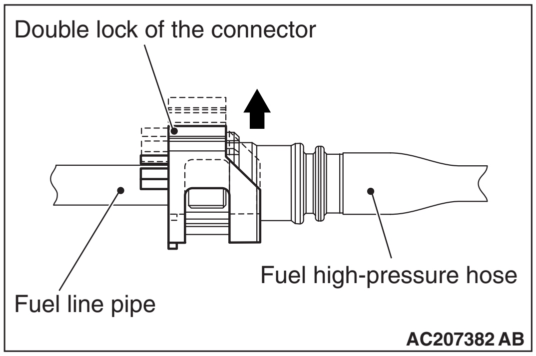
**Removal steps (Continued)**

22. Fuel filler neck gasket
23. Fuel filler neck valve

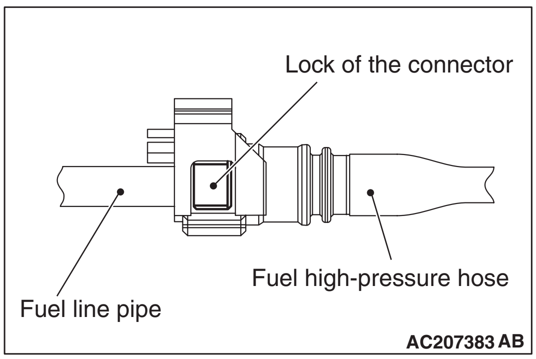
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## REMOVAL SERVICE POINTS

### <<A>> FUEL HIGH-PRESSURE HOSE DISCONNECTION



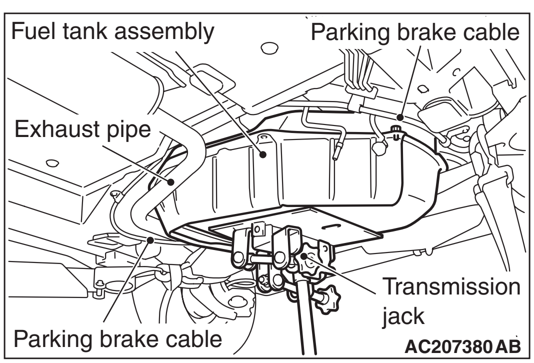

1. Push up the double lock of the fuel high-pressure hose connector.




2. Disconnect the fuel high-pressure hose while pushing the lock of the fuel high-pressure hose connector.

### <<B>> FUEL TANK ASSEMBLY REMOVAL

1. Support the fuel tank assembly with a transmission jack, and remove the coupling nuts of the fuel tank assembly.




2. Lower the fuel tank assembly to remove it while clearing the exhaust pipe and parking brake cable.

### <<C>> FUEL TANK PUMP AND GAUGE ASSEMBLY REMOVAL

**⚠ CAUTION**

**When withdrawing the fuel tank pump and gauge assembly from the fuel tank, be careful not to damage the gauge and the float.**

## INSTALLATION SERVICE POINTS

### >>A<< FUEL TANK PUMP AND GAUGE ASSEMBLY INSTALLATION

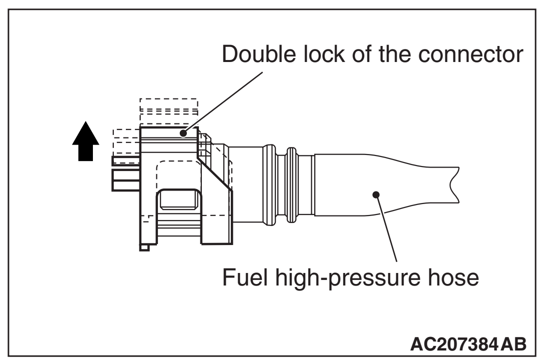
**⚠ CAUTION**

**When installing the fuel tank pump and gauge assembly into the fuel tank, be careful not to damage the gauge and the float.**

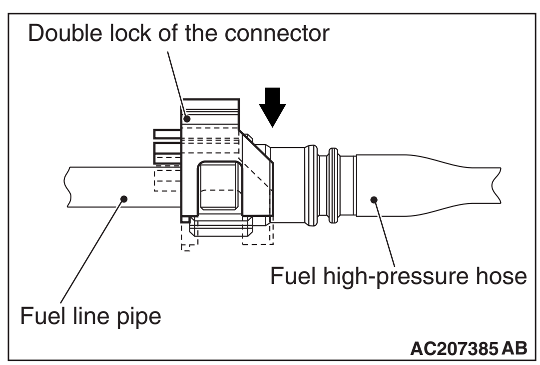
### >>B<< FUEL HIGH-PRESSURE HOSE INSTALLATION

**⚠ CAUTION**

**After connecting the fuel high-pressure hose, slightly pull it to ensure that it is installed securely. Also confirm that there is a play approximately 3 mm.**




1. Before installing fuel high-pressure hose, push up the double lock of the fuel high-pressure hose connector.




2. Install the fuel high-pressure hose connector to the fuel line pipe securely, and push down the double lock of the connector to lock it thoroughly.

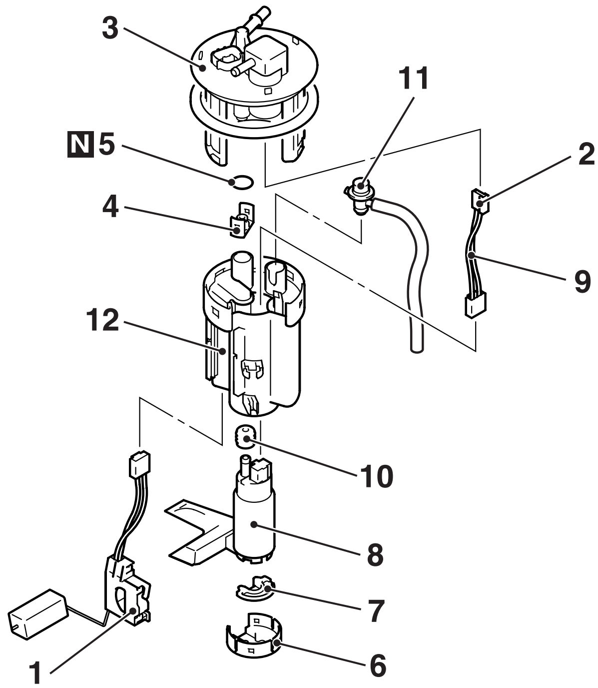
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## DISASSEMBLY AND ASSEMBLY

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## FUEL TANK PUMP AND GAUGE ASSEMBLY

*NOTE: For the removal and installation procedures, refer to the fuel tank pump assembly replacement procedure in On-vehicle Service (Refer to P.13C-3).*




AC403116 AB

**Disassembly steps**

| | | |
|---|---|---|
| | 1. | Fuel tank gauge unit |
| | 2. | Fuel pump harness connection |
| | 3. | Fuel pump bracket |
| | 4. | Fuel pump cap |
| >>**B**<< | 5. | O-ring |
| | 6. | Fuel pump bracket |
| | 7. | Fuel tank pump cushion |
| | 8. | Fuel tank pump |
| | 9. | Fuel pump harness |
| >>**B**<< | 10. | Fuel tank grommet |
| >>**A**<< | 11. | Fuel pump pressure regulator <4A9> |
| | 12. | Fuel tank filter assembly |

## ASSEMBLY SERVICE POINTS

### >>A<< FUEL PUMP PRESSURE REGULATOR INSTALLATION

1. Apply a gasoline on the fuel pump pressure regulator O-ring.
2. Turn the fuel pump pressure regulator to the right and left to install to the fuel tank filter assembly. Be careful not to damage the O-ring. After installing, check that the item turns smoothly.

### >>B<< FUEL TANK GROMMET/O-RING INSTALLATION

Apply a gasoline on the fuel tank grommet and the O-ring before mounting them to prevent damage or twisting.